

CLAIMS

What is claimed is:

- 1 1. In a universal joint assembly having a housing and a universal joint in a
2 chamber within the housing, the improvement comprising:
3 a diaphragm seal in said housing forming a wall of said chamber,
4 said chamber being substantially sealed to exclude entry of foreign elements,
5 *and*
6 said diaphragm seal being flexible to allow for expansion and contraction of
7 said chamber to prevent any substantial increase or decrease in the pressure within the
8 chamber.
- 1 2. *In the universal joint of claim 1, wherein said diaphragm seal separates*
2 said chamber from a vent space, and further including a vent hole from said vent space.
- 1 3. In the universal joint of claim 1, wherein said diaphragm seal includes a
2 sinuous sheet of flexible material.
- 1 4. In the universal joint of claim 1, wherein said diaphragm seal includes a
2 flexible sheet having a plurality of concentric annular, circular portions of progressively
3 increasing radius measured from a centerpoint of the sheet, alternate circular portions
4 having a generally U-shaped cross-section opening toward chamber and the remaining
5 circular portions having a generally U-shaped cross-section opening away from said
6 chamber.

1 5. In the universal joint of Claim 4, wherein said diaphragm seal separates
2 said chamber from a vent space, and further including a vent hole from said vent space.

1 6. In the universal joint of claim 5, wherein said flexible sheet is made of an
2 elastomeric material.

1 7. In the universal joint of claim 1, wherein said diaphragm seal includes a
2 flat sheet of flexible, stretchable elastomeric material.

1 8. In the universal joint of claim 7, wherein said diaphragm seal separates
2 said chamber from a vent space, and further including a vent hole from said vent space.